



REMARKS

Claims 1-3, 5-6, 11-13, 15, 19, and 24 have been amended. Claims 1-24 are pending in the application.

In the Office Action, claims 1-4, 7-9, 11-13, 15-17, 19-21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,890,189 (*Nozue*). The Applicants respectfully traverse the rejection for reasons specified below.

For ease of discussion, claim 7 is discussed first. Claim 7, in part, calls for defining at least one computer instruction as a privileged instruction. Moreover, claim 7 specifies identifying information for protection, where access to this information is controlled using the privileged instruction. The Examiner argues that the “privileged instruction” in *Nozue* corresponds to instructions that are stored in a region defined and control by generator 14. See Office Action, page 4. The Examiner further asserts that the “information” that is to be protected corresponds instruction 14 and data 15. *Id.* Thus, according to the Examiner, the “privileged instruction” and the “information to be protected” both correspond element 14. The Examiner is clearly relying on the same element 14 of *Nozue* to show two different features of the claim. This the Examiner cannot do. To the extent the Examiner argues that the “data” (element 15) is the “information” referenced in claim 7, the Examiner’s argument still fails because claim 7 specifies that access to the “information” is controlled using the privileged instruction. In *Nozue*, the “instructions” 14 are not used to control access to “data” 15. For this reason alone, claim 7 and its dependent claims are allowable.

The Examiner also rejects the other independent claims, such as claim 1, 15, 19, and 24, over Nozue. These claims are directed at providing at least two layers of protection for information stored in a memory. As described in the patent application, some systems provide protection using page or segment tables. *See Patent Application*, page 3. But, also as noted in the patent application, this type of arrangement may not be adequate for protection. *See Id.* at 15-21. The specification describes an embodiment in which the security level is improved through the use of privileged instruction(s) and another table (e.g., shown in Figure 5) that associates at least one of read and write privilege with one or more physical addresses of a memory that houses the selected information. In this manner, the selected information is more secure. Indeed, the patent application states that by “controlling access at the physical level, it is “difficult for programs to gain unauthorized access by first mapping virtual pages to the protected memory location and then indicating in the alias page table entry that the protected memory is write enabled.” *Id.* at p.18, lines 13-16. The claims 1, 15, 19, and 24 are directed to one or more features of the embodiments described in the specification.

Claim 1 is considered first. Claim 1 calls for a method for providing security in a computer system. The method includes controlling access to selected information using attributes defined in a first table, such as a segment or page table for example. The method further calls for controlling access to the selected information using a second table that associates at least one of a read and write privilege with one or more physical addresses of a memory that houses the selected information. The method also calls for receiving a request from a program to access the information and allowing access to the information in response to determining that the

program has the authority to access the information based on at least one of the read and write privilege.

Nozue fails to teach one or more the claimed features. For example, while Figure 11 shows a segment table with various access rights, nothing in Nozue teaches or even suggests using another table with read and write privileges to protect the information in the manner claimed. For example, Nozue does not teach or suggest controlling access to the selected information using a second table that associates at least one of a read and write privilege with one or more physical addresses of a memory that houses the selected information. For this reason alone, claim 1 and its dependent claims are allowable. Additionally, independent claims 15, 19, and 24, and their respective dependent claims, are allowable in view of the respective claimed features recited therein.

U.S. Patent 4,442,484 (*Childs*), the other referenced relied upon by the Examiner, also fails to teach or suggest the features missing from the first reference. Accordingly, for this reason, all of the pending claims are believed to be allowable. In view of the reasons presented above, reconsideration of the present application is respectfully requested and a Notice of Allowances is respectfully solicited.

If for any reason, the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Houston, Texas telephone number (713) 934-4064 with any questions, comments or suggestions relating to the referenced patent application.

Date:

8/24/05

Respectfully submitted,

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